

# 5G Slice to Price

TechM Platform for commercializing  
network slices powered by  
BlueMarble®

# Concept

The definition of a large portion of the network services in 5G will be done by layers higher than a traditional network nodes – BSS (business models + offerings), OSS (optimization and orchestration) and the customers.

All this, at **unprecedented scale!**

Network slicing will allow CSPs to split physical network to multiple purpose designed virtual networks, allowing, from a commercial standpoint, **faster time to market and create multiple revenue models.**

The question is – how do we do it?

## Core Elements



Lightweight, In-context User Experience



Centralized, Open and Standard yet Flexible Product Catalog



Hierarchical, Role based customer and partner information



Seamless – Highly configurable Order Management journeys



At scale online rating, charging and billing

# Business View: Network Slicing Offerings

## VERTICAL SLICE

Network Slicing will allow to split a single physical network into multiple virtual networks

## HORIZONTAL SLICE



eMBB - Broadband



URLCC - Real-Time Control



mMTC - Connected Devices

### Multimedia: Wireless Broadband Slice

Live video stream, 3D video stream

### Public Safety: Real-time Control slice

Push to talk, Mission critical communication

### Car Infotainment: Wireless Broadband Slice

Customizations of network slices for real time data streaming with high mobility

### Smart Home: Wireless Broadband Slice

Customizations of network slices for high bandwidth data pipe for home appliances

### Connected Vehicle: Real-time Control Slice

Customizations of network slices for real time data monitoring with high mobility

### Smart Factory Automation: Real-time Control Slice

Customizations of network slices for ultra low latency devices

### Smart City: IoT Slice

Customizations of network slices for huge number of devices with low mobility and bandwidth

### Robo Processing: IoT Slice

Customizations of network slices for high bandwidth and ultra latency for Robo processing in high security applications

### Real Time Gaming: Video Streaming Slice

Customizations of network slice for experience with high bandwidth (4K/8K videos) and low latency

### LIVE Stadium at Home: Video Streaming Slice

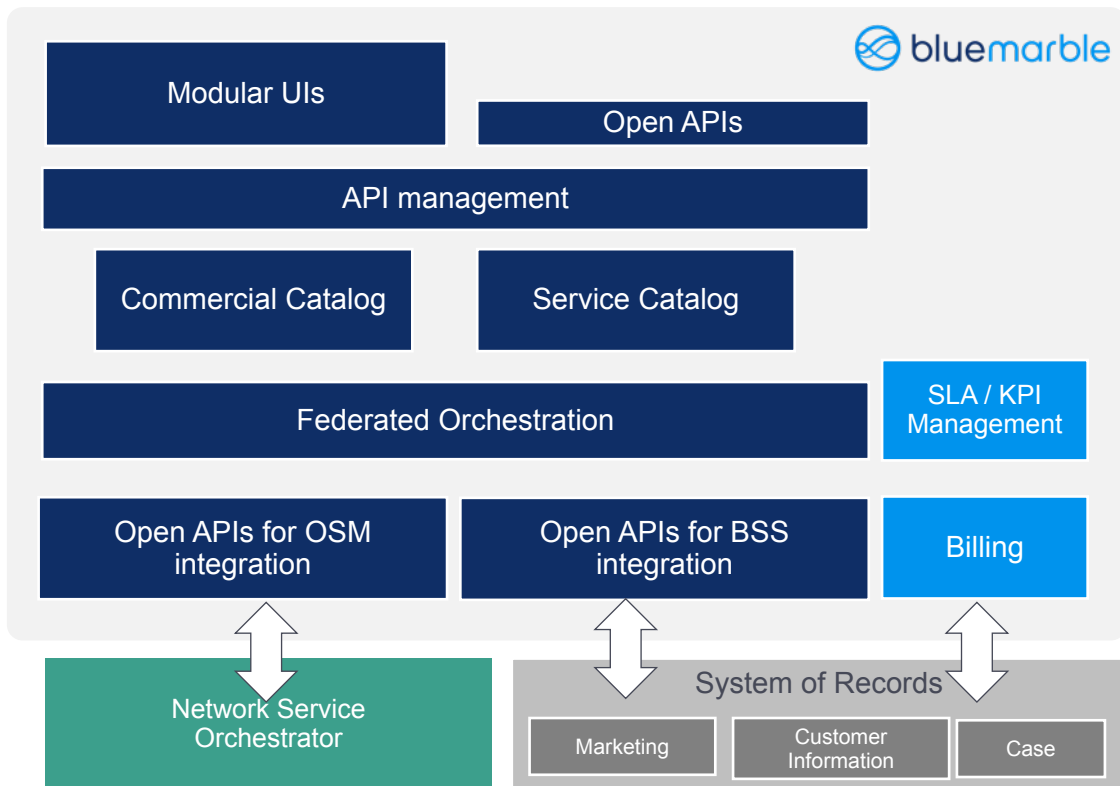
Customizations of network slice for experience LIVE sports with high bandwidth (4K/8K videos) and low latency

# BlueMarble Solution



- TM Forum compliant APIs and Data Models
- Cloud Native Microservices Architecture
- Logic de-coupled User Interfaces – Drag-Drop Designer Studio, Rules, Content, Styling
- Omnichannel Sales | Catalog | Customer | Orders with easy std. integrations (ext./int.)
- Business Owned No Code Process Modelling and Event Orchestration
- Developer and Infrastructure Automation
- 100% Open Source
- Deployments across tier 1 operators in North America and Europe

# Standards driven, Open Source, Digital solution



**kubernetes** **docker**  
Cloud native, micro-service based architecture

**OPEN API INITIATIVE**  
Open Source software  
TMF Compliant Open APIs

**ONAP** **Open Source MANO**  
**OPEN API INITIATIVE**  
Standards based Integration  
BSS & OSS, OSM & ONAP

| TMF ID             | Description         |
|--------------------|---------------------|
| TMF-629<br>TMF-632 | Customer/Party Reg. |
| TMF-622            | Place order         |
| TMF-666            | Manage Account      |
| TMF-683            | Manage Interaction  |
| TMF-678            | Manage Billing      |
| TMF-639<br>TMF-637 | Manage. Inventory   |
| TMF-620            | View Products       |
| TMF-637            | View Prod Instances |
| TMF-641            | View Orders         |
| TMF-629<br>TMF-632 | View Customer       |
| TMF-639            | View Inventory      |
| TMF-628<br>TMF-649 | View KPIs           |
| TMF-623<br>TMF-657 | SLA Violation       |
| TMF-677            | View Balance        |
| TMF-635            | View Usage          |
| TMF-663            | Manage Cart         |

# BlueMarble for Network Slice Commercialization

## ASK

- Build a completely independent, lean and future proof **5G BSS stack** (for B2B2X)
- Zero techno-functional debt
- Network slice commercialization
- Explore possibilities for reducing operational costs through maximizing customer self-care and automation
- To be used for first trials with friendly customers

## MODELS (Examples)

|                              | B2B – Industrial Campuses                                                                    | B2C – Dedicated Short-term                                                                                           | B2B2x – Live Events and Broadcast                                                                                      |
|------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Slice Characteristics</b> | <ul style="list-style-type: none"> <li>• Dedicated quality</li> <li>• Isolated</li> </ul>    | <ul style="list-style-type: none"> <li>• Application-driven</li> </ul>                                               | <ul style="list-style-type: none"> <li>• Dedicated low latency</li> <li>• Location based</li> </ul>                    |
| <b>Applications</b>          | <ul style="list-style-type: none"> <li>• AGVs</li> <li>• mIoT sensors</li> </ul>             | <ul style="list-style-type: none"> <li>• Video</li> <li>• AR/VR</li> <li>• Ultrafast Internet</li> </ul>             | <ul style="list-style-type: none"> <li>• Immersive media</li> <li>• Ecosystem Play (Goods and Data)</li> </ul>         |
| <b>Slice Access</b>          | <ul style="list-style-type: none"> <li>• B2B SIMs</li> <li>• B2B Admin controlled</li> </ul> | <ul style="list-style-type: none"> <li>• DB2B SIMs</li> <li>• Consumer books access</li> <li>• Time bound</li> </ul> | <ul style="list-style-type: none"> <li>• Arena owner orders slice</li> <li>• In-arena consumer books access</li> </ul> |
| <b>Slice Owner</b>           | Campus Owner                                                                                 | CSP                                                                                                                  | Arena Owner                                                                                                            |

# Slice Ordering Portal

**5G NETWORK SLICING** Ordering Monitoring My Products Kamalesh

## NETWORK SLICING

With Enhanced Mobile Broadband (eMBB) providing extremely high data rates, services like in-car infotainment, streaming real-time video or AR/VR, supported training for your employees will be much more comfortable, because high bandwidth makes customer experience faster and more seamless than ever.

**eMBB Offering**

**Benefit from Adaptive Managed Latency (AML)**

Improve the experience of your application by getting real-time network quality information and tailored latency treatment.

**AML Offering**

**Fast and reliable device communication**

With uRLLC (Ultra-reliable low latency communication) services for applications like factory automation, autonomous driving and remote surgery become possible.

**uRLLC Offering**

**Empower your Internet of Things of Things with 5G**

With mMTC (Massive Machine Type Communications) low-cost and low-energy devices communicate efficiently over 5G in a wide variety of locations – be it for smart cities, logistics or agriculture.

**mMTC Offering**

**Manage and monitor your products**

**Product Inventory**  
Manage your Products and Sims.

Assign your SIMs to the slices that you booked. Book options on top if needed...

**Monitoring**  
Monitor your KPIs.

Be sure that your applications run properly. Make informed and timely decisions based on real-time data. Go to Dashboard...

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## eMBB Offering

| eMBB 5G Offering                                                                                                                                                                 | Media Production                                                                                                                                                                                                  | Campus AGV Connectivity                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>✓ Uplink Speed - 200 Mbps</li> <li>✓ Downlink Speed - 400 Mbps</li> </ul> <p style="text-align: center; font-size: 24px;"><b>55 €</b></p> | <ul style="list-style-type: none"> <li>✓ Full HD Content Streaming</li> <li>✓ Guaranteed Uplink of 100Mbps</li> <li>✓ High reliability</li> </ul> <p style="text-align: center; font-size: 24px;"><b>66 €</b></p> | <ul style="list-style-type: none"> <li>✓ For Indoor and Outdoor usage</li> <li>✓ Ideal for 2D/3D scan and optical se...</li> <li>✓ high reliability</li> </ul> <p style="text-align: center; font-size: 24px;"><b>66 €</b></p> |
| <a href="#">Choose</a>                                                                                                                                                           | <a href="#">Choose</a>                                                                                                                                                                                            | <a href="#">Choose</a>                                                                                                                                                                                                         |

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